



## VMware Horizon View Delivers Secure and Reliable Access to Customer Support Applications for Call Center Agents Working Around the World

### INDUSTRY

Telecommunications

### REGIONS:

Offices across North America, Central America, and the Philippines

### SIZE

More than \$10 billion in annual revenue, 30,000 employees, and 13 million customer connections (wireless, wireline, Internet, and TV)

### ABOUT THE BUSINESS

A leading national telecommunications company in Canada, TELUS is dedicated to unleashing the power of the Internet to deliver the best solutions to Canadians at home, in the workplace, and on the move.

### PRODUCTS

- VMware® Horizon View™
- VMware® ThinApp®
- VMware vSphere®

### Snapshot

Growth in TELUS business lines and subscribers triggered the need to scale up its customer support staff. In 2009, TELUS began investing in VMware desktop virtualization to securely and reliably deliver the same customer support applications used by its Canadian call center employees to offshore call center partners worldwide. Today, a staff of just five IT workers supports the VMware Horizon View deployment, which has more than doubled in four years to nearly 3,000 concurrent users and 5,000 unique desktops.

### Business Challenges

- Securely provision customer support applications to remote call center agents around the globe while protecting customer data from loss or theft
- Remotely manage new users, software upgrades, and application maintenance
- Support a growing call center with limited budget and headcount

### Solution

Horizon View virtual desktop and ThinApp solutions securely and reliably deliver customer support applications to call center agents around the world while keeping customer-sensitive data in Canadian data centers.

### Benefits

- Protects customer data from being lost or stolen
- Enables the reliable delivery of critical customer-service applications around the world
- Centralizes infrastructure for easier management with limited resources
- Helps TELUS leverage more cost-efficient and scalable offshore labor

### Use Cases

- Secure, remote office access
- Centralized, high-availability desktop

***“I would recommend VMware Horizon View for a virtual desktop service. We’ve looked at a lot of different virtual desktop services over the years and I believe that the architecture of the Horizon View service provides the most flexibility in delivering services to customers.”***

Chris Fedje  
Workplace Services Manager  
TELUS

### Situation

Customer care is a strategic business differentiator for telecommunications firms. While maintaining a strong commitment to its call centers in Canada, TELUS wanted to add international locations to provide geographic diversity and serve customers in multiple languages and in multiple time zones. IT leaders asked workplace services manager Chris Fedje to put together a desktop support team to ensure the initiative’s success. In 2009, the group’s first task was to provide secure access to TELUS tools—the applications used by its Canadian call center agents—to integrate the company with a new international call center provider, TELUS International Philippines.

At the time, IT faced a number of challenges. “We needed to deploy both a high-performance and flexible virtual desktop solution to support the types of workloads moving offshore—but data security and cost were primary concerns,” recalls Fedje.

TELUS sought to invest with a technology partner focused on flexible infrastructure to maximize technology reuse and minimize ongoing TCO.

### Solution

TELUS evaluated its options and selected Horizon View to securely and reliably deliver access to TELUS tools to call center partners worldwide.

Horizon View is a complete virtual desktop infrastructure (VDI) solution that simplifies desktop management and provides remote users with what they need, when they need it.

The TELUS global Horizon View deployment is enhanced by VMware partner solutions. TELUS uses Trend Micro Deep Security for advanced server security and Liquidware Stratusphere to monitor desktop and user performance. On the hardware front, TELUS deployed Horizon View utilizing HP and IBM servers, NetApp and EMC storage, and F5 big IP load balancers to ensure that applications are delivered quickly, securely, and with high availability.

For added security, the TELUS implementation supports nonpersistent Windows 7 desktops using the Horizon View Client on PC-over-IP (PCoIP) zero clients from Dell Wyse and HP that provide high performance and a rich user experience. To further increase performance, TELUS leverages Microsoft Remote Desktop Connection (RDP) 7 and Riverbed Steelhead WAN optimization.

The team of IT professionals supporting TELUS offshore call center agents has remained constant. “My team that supports 3,000 concurrent connections and 5,000 unique users is a team of five, and we support the images, administration, and backend,” explains Fedje.

Since 2009, the team has built one major Horizon View pod every year, with each version improving capabilities in scale, density, and performance.

“Our first iteration of virtual desktop infrastructure was for 700 concurrent users and approximately 1,200 unique desktops,” explains Fedje. “Since that time, every new Horizon View pod has increased in density and performance. We’re now deploying 2,800 concurrent connections from infrastructure that supports 3,200 total desktops. Our next Horizon View pod that will be available at the end of 2013 will support 6,000 concurrent connections and 8,000 virtual desktops.”

Fedje and his colleagues administer, secure, and support all of the remote desktop images. They also accelerate application deployment with ThinApp, an agentless application-virtualization solution that isolates applications from their underlying operating systems to eliminate application conflict and streamline delivery and management.

***“From a security perspective, we protect customer data using the VMware solution. With it, we can deliver all of the tools necessary to provide effective and exceptional service for our customers in a secure manner. All that travels across the wire is pixels and the authentication protocol.”***

Chris Fedje  
Workplace Services Manager  
TELUS

Currently, TELUS support provides access to more than 800 ThinApp applications via streaming from network shares. This gives offshore employees access to typical productivity tools such as Microsoft Office, as well as unified communications products, including Microsoft Lync for enterprise instant messaging and Live Meeting and WebEx for video conferencing. ThinApp enables IT support to manage the user-profile data all as one team.

“We have tight integration with our help desk and offload first contact resolution opportunities to that group,” says Fedje. “From a security perspective, we protect customer data using the VMware solution. With it, we can deliver all of the tools necessary to provide effective and exceptional service for our customers in a secure manner. All that travels across the wire is pixels and the authentication protocol.”

In addition to the Philippines, Horizon View now delivers managed desktops to offshore agents in Central America, the United States, and India. Because information is not stored locally—but instead in the Canadian data centers—critical customer information remains protected wherever it goes.

### Benefits

In Horizon View, TELUS found a secure remote virtual desktop solution that delivers centralized end-to-end desktop management with consistent service quality. Horizon View enables nimble and flexible desktop service provisioning and is resilient to local challenges, including lost or intermittent connectivity. “We provide a desktop service that remains always-on and available, so the next time users connect, they can pick up right where they left off,” says Fedje.

Most important, virtual desktops help TELUS control data-leak exposure by delivering information over HTTPS and display protocols only. According to Fedje, “Horizon View has allowed us to securely provision TELUS tools to our contact center agents around the globe while protecting our customer data. So now our TELUS contact center is both an onshore and offshore service.”

At TELUS, virtual desktops have also delivered operational benefits. A small team of five has been able to scale the virtual desktop environment without incremental headcount. This is possible because service provisioning is through concurrent connections rather than to unique users. The help desk has been instrumental in handling first-contact resolution opportunities for the environment, reducing escalations and improving the efficiency of support team members. VMware virtualization also has streamlined software management, simplifying the upgrade path from Windows OS and Internet browsers.

In cost comparisons versus physical desktop deployments, TELUS discovered that virtual desktop deployments delivered lower TCO. After looking at the cost associated with the hardware on the physical desktop side versus the cost of a thin client device and a virtual desktop, TELUS found that—due to the long life cycle of thin client devices—it was more cost-effective in the long run to replace physical desktops with virtual desktops.

With Horizon View supporting offshore workers, TELUS IT can focus less on infrastructure issues and more on efforts to enhance customer experiences.

## About VMware Horizon Suite

VMware® Horizon™ Suite, the platform for workforce mobility, connects end users to their data and applications on any device without compromising IT security and control. The suite includes the following products:

### VMware Horizon View

Simplify desktop management, security, and control while delivering an optimum end-user computing experience across all devices and networks.

### VMware® Horizon Mirage™

Gain centralized, zero-touch physical and virtual desktop image management with native performance and flexibility for end users.

### VMware® Horizon Workspace™

Streamline the end-user experience and reduce costs with a single workspace for applications and data, delivered securely on any device.

### VMware® vCenter™ Operations Manager for Horizon View™

Monitor and optimize the health, performance, and efficiency of your entire VDI.

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